

CLAIMS

What is claimed is:

1 ^{SUB} 1. A method, for use in a mobile data communication system which
2 includes first and second subscriber registers (HLR1, HLR2) for maintaining subscriber
3 records defining a subscriber identity module registry, a message transmission system (SMSC)
4 for transmission of messages in the communication system, and a mobile station (MS) for use
5 by a subscriber in effecting mobile communications through the data communication system,
6 for controlling a subscriber identity module (SIM) connected to the mobile station (MS) and
7 which stores in the subscriber identity module data comprising a first subscriber identity code
8 (IMSI1) and an encrypted code key (K_i) corresponding to a first subscription for the mobile
9 station subscriber and associated with the subscriber identity module (SIM), wherein when the
10 first subscription is opened for the mobile station subscriber a record of data corresponding to
11 the first subscription and comprising a first subscription-specific call number (MSISDNx), the
12 encryption code key (K_i) and the first subscriber identity code (IMSI1) for the mobile station
13 subscriber is created in the first subscriber register (HLR1), said method comprising the steps
14 of:
15 opening a second subscription for the mobile station subscriber;
16 creating in the second subscriber register (HLF2) a record of data
17 corresponding to the opened second subscription and comprising a second subscription-specific

18 call number (MSISDN), the encryption key (K_i) and a second subscriber identity code (IMSI2)
19 for the mobile station subscriber;

20 transmitting through the communication system a message (SMS)
21 directed to the first subscription and instructing a change in the data stored in the subscriber
22 identity module from data corresponding to the first subscription to data corresponding to the
23 second subscription; and

24 changing, in response to receipt of the message (SMS) directed to the
25 first subscription, the data stored in the subscriber identity module to the data corresponding to
26 the second subscription.

1 2. A method in accordance with claim 1, further comprising the steps of:

2 transmitting through the communication system an acknowledgement of
3 receipt of the message (SMS) and of success in changing of the stored data in the subscriber
4 identity module; and

5 removing from the first subscriber register (HLR1), in response to
6 receipt of the acknowledgement, the record of data corresponding to the first subscription.

1 3. A method in accordance with claim 1, further comprising the steps of:

2 transmitting through the communication system a second message (SMS)
3 directed to the second subscription;

4 transmitting through the communication a second acknowledgement of
5 receipt of the second message (SMS); and

6 removing from the first subscriber register (HLR1), in response to
7 receipt of the second acknowledgement, the record of data corresponding to the first
8 subscription.

1 4. A method in accordance with claim 1, further comprising the steps of:
2 waiting, following said transmitting of the message (SMS) directed to the
3 first subscription, for a predetermined period of time for receipt of the acknowledgement; and
4 if the acknowledgement is not received within the predetermined period
5 of time, transmitting through the communication system a second message (SMS) directed to
6 the second subscription.

1 5. A method in accordance with claim 4, further comprising the steps of:
2 detecting when the second subscription is attached to the communication
3 system; and
4 removing from the first subscriber register (HLR1) the record of data
5 corresponding to the first subscription upon detection that the second subscription is attached to
6 the communication system.

1 6. A method in accordance with claim 1, wherein said changing step further
2 comprises removing from the subscriber identity module a temporary subscriber identity code
3 (TMSI) stored in the subscriber identity module with the first subscription data.

1 7. A method in accordance with claim 1, wherein the data communication
2 system comprises a GSM mobile communication system.

1 8. In a mobile data communication system which includes first and second
2 subscriber registers (HLR1, HLR2) for maintaining subscriber records defining a subscriber
3 identity module registry, a message transmission system (SMSC) for transmission of messages
4 in the communication system, a mobile station for use by a subscriber in effecting mobile
5 communications through the data communication system, and a subscriber identity module
6 (SIM) connected to the mobile station and storing in the subscriber identity module data
7 comprising a first subscriber identity code (IMSI1) and an encrypted code key (K_i)
8 corresponding to a first subscription for the mobile station subscriber and associated with the
9 subscriber identity module (SIM), and in which when the first subscription is opened for the
10 mobile station subscriber a record of data corresponding to the first subscription and
11 comprising a first subscription-specific call number (MSISDN_x), the encryption code key (K_i)
12 and the first subscriber identity code (IMSI1) for the mobile station subscriber is created in the
13 first subscriber register (HLR1), the improvement comprising a control device (1) for
14 controlling the subscriber identity module (SIM) and comprising:

15 first means (2) for opening in the second subscriber register (HLR2) a
16 record of data corresponding to the opened second subscription and comprising a second
17 subscription-specific call number (MSISDN), the encryption key (K_i) and a second subscriber
18 identity code (IMSI2) for the mobile station subscriber;

19 third means (4) for generating a message (SMS) to be directed through
20 the communication system to the first subscription and instructing a change in the data stored
21 in the subscriber identity module from data corresponding to the first subscription to data
22 corresponding to the second subscription; and

23 fourth means (5) for changing the data stored in the subscriber identity
24 module (SIM) from the data corresponding to the first subscription to the data corresponding to
25 the second subscription.

9. In the mobile data communication system of claim 8, said control device
(1) being disposed in conjunction with a billing and customer control system of the data
communication system.

10. In the mobile data communication system of claim 8, the message
transmission system comprising a short message system.

response to receipt of the message (SMS) directed to the first subscription, the data stored in the subscriber identity module is changed to the data corresponding to the second subscription.

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